SUMMARY OF WORKSHOP PROCEEDINGS
CONSERVATION PLANNING FOR THE SOUTHERN RESIDENT KILLER WHALE
OCTOBER 24, 2003
SEATTLE AQUARIUM

Workshop Objective: To identify strategies for addressing potential effects of contaminants on the viability of the southern resident killer whale population.

Potential Strategies for a Conservation Plan: Break out group reports

Group 1: Education/Conservation

This group focused their discussion around how to bring understanding into the public. They shared the following suggestions:

- Government agencies must prioritize education though the Internet, PSAs, brochures and other communication materials.
- We must take an ecosystem approach to education, not just focusing on whales but on the entire interrelated ecosystem. Everything we do in the ecosystem has value.
- Talk to the people, bringing complex issues to the public, to help guide political and/or individual action.
- Share information between the groups here. We must enhance communication between groups doing education and groups gathering the research or working on policy.
- Include Native American perspective.
- Let reporters know that information is available. NMFS should decide the message shared with the media.
- Redefine the term environmentalist, so it can be a part of everyone's identity.
- Start with young people.
- Create communication materials that focus on what to do, rather than what not to do.

The group identified its target audiences as: schools, general public, industry, politicians, media, government agencies, international community and funders. The group identified tools for this communication effort as including: Web sites, listservs, brochures, PSAs, publications, signage and exhibits.

Group 2: Clean-up of Contaminated Sites

The group began by acknowledging that there is an existing institutional system around site clean up, but it needs to improve. There is a large pool of sites that present problems for orcas, and we may need to prioritize where orcas or food are, if possible. The group then made these suggestions:

- Accelerate clean-up of orca harming bioaccumulating toxins.
- Call for a timeline to complete clean-up of known sites.
- Since many clean-ups won't happen soon, but chemicals keep escaping, take interim steps until full clean-up has occurred.
- Develop way to consider orca as 'receptor of concern" for clean-ups.

- Review available data and undertake surveys to ensure no unknown sites exist with orca-harming toxins.
- Require source control and monitoring to ensure sites are not recontaminated.
- Disclose/call out need for funding for public and orphan site clean-ups and find more resources for oversight of existing sights.
- There is a need for more communication with public and among agencies.

Group 3: Point Source/Non Point Source

This group focused on actions to confront both legacy and new compounds. The group made several suggestions:

- International
    - The U.S. government should ratify the Stockholm Convention on POPs and identify additional new compounds on this list.
    - All POPs and other chemicals banned in the U.S. should not be permitted to be sold in other countries. Must identify new compounds and get those banned as well locally and globally.
- Local
    - Take a proactive approach to identifying compounds and treatment. Removal at the source, upgrade the archaic treatment system.
    - Increase public education about decreasing lawn care items used for cosmetic use.
    - Regulate new chemicals, especially bioaccumulative ones. Focus on ways to make them non hazardous.
    - Develop monitoring program for leakage of sites.
    - Gather more information from military installations on past and present PCB contamination sites and where they are in cleaning them up or preventing ecosystem contamination.
    - Include disposal costs of chemicals in manufacturing/sale of products, for example, lead batteries. This will get at the true cost of the product and will affect consumer choices.
    - Target the public, and express the true ecological cost of this problem, for example, lowered IQs in children exposed to high levels of PCBs. This can then be used to educate people about the precautionary principle as it concerns future regulatory aspects of new chemicals.
    - Need to explain alternatives to use instead of fertilizers.
    - Advance technology in water treatment facilities. Develop a new system that can help find disease in the water. Regulate pathogen discharge to protect marine mammals, not just humans.
    - Make it easier for the general public to dispose of hazardous waste. Have total recycling, for example, in parts of Europe the cost of recycling the product is included in every item.
    - Register every chemical and have standard testing for all chemicals sold on the market.
    - Look toward regulation for new chemicals.
    - Start in local watershed with public outreach.

Group 4: Monitoring
This group focused on suggestions for monitoring both disease and contaminants, saying that monitoring was fundamental to management. They first identified three groups to monitor:

- Free-range animals, orcas set back in the ocean
- Stranded dead
- Captive population (use as control group)

The group said that tieing temporal effect to outcomes is key. The group then made the following recommendations:

- Expand Puget Sound Monitoring Program to include orcas and harbor porpoises, not just harbor seals, as indicators of contamination.
- Expand data collection and ongoing tagging activities by NWFSC.
- Expand number of site and rigor of sampling for harbor seals.
- Need to understand and model all of habitat.
- It is important to have data to demonstrate benefits of mitigation.
- Look for new funding sources from the state, WDF, Orca Recovery Program and the State Salmon Recovery Fund.
- Take advantage of new techniques and add to what we can do.
- Take advantage of use of Northern Residents as a control, or a less "bordered" group.

Group 5: Pathways
The group suggested we first must get a handle on the scope of the problem and identify where in the world we need to worry about them. This will help guide research, and identify relative importance. The group identified two pathways: salmonids and squid, and bottom fish. They then shared the following conclusions:

- Salmon get some toxins from the Puget Sound and the rest from their marine phase. We must address ocean environment through global treaties, as this is an issue affecting the open ocean.
    - Toxins come from the sediment, the atmosphere, run off and/or dump sites. Some solutions include preventing municipal, agricultural and industrial run off, and cleaning dump sites
- The bottom fish get toxins from the sediment or atmosphere and are not as wide-ranging as salmonids. Some suggestions for this pathway is to manage waste in CA and WA, and limit agricultural toxins that are used along the coast.
- Have to do research and action concurrently.

General strategies

- Look at stress from a transboundary perspective regarding orcas and salmon.
- Coordinate with multiple agencies, audiences, etc. People are taking different approaches, and there are cumulative positive benefits.
- We need to streamline barriers created by the border.